

REMARKS/ARGUMENTS

In the Office Action dated January 2, 2004, the Examiner objected to claim 2 because the formula in this claim has the same number as the formula in claim 14. Applicants submit that in a previous Amendment Response filed on August 22, 2003, claim 2 was amended to replace “formula VII” with “formula I”.

The Examiner rejected claims 1-3, 5-16 and 18 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of United States Patent 6,384,125 in view of United States Patent 5,708,069; and claims 4 and 17 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of United States Patent 6,384,125 in view of United States Patent 5,708,069 and further in view of WO 99/09036. Applicants submit that a terminal disclaimer in compliance with 37 CFR 1.321(c) has been filed herewith to overcome these rejections.

Further, the Examiner rejected claims 1-3, 5-8, 10, 12, 14-16, and 18 under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,708,069 (“Patent ’069”). Applicants submit that Patent ’069 teaches that an aqueous suspension of hydrophilic non-aggregated colloidal silica can be reacted with one or more of the organosilicon compounds described by formulas 1 and 2 (see column 5, lines 34-37). A list of suitable organosilicon compounds for use in the invention is disclosed (see column 6, lines 24-41). One having ordinary skill in the art could select from the list any one organosilicon compound or any combination of more than one organosilicon compound. The reference provides no guidance or direction for selecting any particular organosilicon compound and combining it with any other organosilicon compound. For example, a skilled artisan could select a silane in combination with another silane, or a silane in combination with a siloxane, or a siloxane in combination with another siloxane. Patent ’069 does not teach nor suggest a specific combination comprising a mercaptoorganometallic compound and a non-sulfur organometallic compound as claimed in the present invention.

It is now well established by the Federal Circuit that cited prior art must provide one of ordinary skill in the art with the motivation to use the disclosure of a reference in a manner that renders the claims obvious; namely, there must be some teaching suggestion or incentive in the prior art disclosure that supports the rejection. This requirement stands as the critical safeguard against hindsight analysis and rote application of the legal test for obviousness.

See, in particular, *In re Rouffet*, 47 USPQ 2d 1453, 1458 (Fed. Cir. 1998). Further, see, *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988), wherein the Court found that “The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art … Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant’s disclosure.”

Further, in regards to Patent ‘069, the Examiner indicated that it would have been obvious in view of this reference to use a base upon completion of the hydrophobing reaction to obtain a desirable neutral pH. Applicants submit that Patent ‘069 does not disclose increasing the pH following the hydrophobing reaction. Moreover, the Examples presented in Patent ‘069 record only the pH value at which the silica hydrogel was prepared; the Examples do not record the pH value during or following the hydrophobing reaction of said hydrogel. Patent ‘069 does not recognize any reason or purpose for adjusting the pH. As such, there would be no motivation for one of ordinary skill in the art at the time of the invention to modify the disclosure in this reference. See, *In re Laskowski*, 871 F.2d 115, 117, 10 USPQ2d 1397, 1398 (Fed. Cir. 1989), wherein the Court found that “Although the Commissioner suggests that [the structure in the primary prior art reference] could readily be modified to form the [claimed] structure, ‘[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.’”

In view of Patent ‘069, absent an impermissible hindsight reconstruction using Applicant’s invention as a roadmap, there would be no motivation for a skilled artisan to select a mercaptoorganometallic compound and a non-sulfur organometallic compound to the exclusion of any other single compound or combinations of disclosed compounds; and there would be no motivation for a skilled artisan to increase the pH of the reaction mixture following the hydrophobing reaction. Thus, Applicants respectfully request reconsideration and withdrawal of this rejection.

Moreover, in the Office Action the Examiner rejected claims 1-3, 5-16 and 18 under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,051,672 (“Patent ’672”) in view of United States Patent 5,708,069 (“Patent ’069”). Applicants traverse this rejection.

Applicants submit that Patent '672 teaches that an aqueous suspension of hydrophilic non-aggregated colloidal silica can be reacted with one or more of the organosilicon compounds described by formulas 1 and 2 (see column 3, lines 56-60). A list of suitable organosilicon compounds for use in the invention is disclosed (see column 4, lines 28-40). One having ordinary skill in the art could select from the list any one organosilicon compound or any combination of more than one organosilicon compound. The reference provides no guidance or direction for selecting any particular organosilicon compound and combining it with any other organosilicon compound. For example, a skilled artisan could select a silane in combination with another silane, or a silane in combination with a siloxane, or a siloxane in combination with another siloxane. Patent '672 does not teach nor suggest a specific combination comprising a mercaptoorganometallic compound and a non-sulfur organometallic compound as claimed in the present invention.

In regards to Patent '069, as presented above, Applicants submit that Patent '069 teaches that an aqueous suspension of hydrophilic non-aggregated colloidal silica can be reacted with one or more of the organosilicon compounds described by formulas 1 and 2 (see column 5, lines 34-37). A list of suitable organosilicon compounds for use in the invention is disclosed (see column 6, lines 24-41). One having ordinary skill in the art could select from the list any one organosilicon compound or any combination of more than one organosilicon compound. The reference provides no guidance or direction for selecting any particular organosilicon compound and combining it with any other organosilicon compound. For example, a skilled artisan could select a silane in combination with another silane, or a silane in combination with a siloxane, or a siloxane in combination with another siloxane. Patent '069 does not teach nor suggest a specific combination comprising a mercaptoorganometallic compound and a non-sulfur organometallic compound as claimed in the present invention.

As previously stated, it is now well established by the Federal Circuit that cited disclosure of a reference in a manner that renders the claims obvious; namely, there must be some teaching suggestion or incentive in the prior art disclosure that supports the rejection. This requirement stands as the critical safeguard against hindsight analysis and rote application of the legal test for obviousness. See, in particular, *In re Rouffet*, 47 USPQ 2d 1453, 1458 (Fed. Cir. 1998). Further, see, *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988), wherein the Court found that "The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of

ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art ... Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure."

See also, *In re Stencel*, 828 F.2d 751, 755, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987) wherein the Court found that obviousness cannot be established "by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion that the combination be made." Moreover, in *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int'l 1985); the Court found that "To support the conclusion that the claimed combination is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed combination or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references ... [S]implicity and hindsight are not proper criteria for resolving the issue of obviousness." In *Ex parte Haymond*, 41 USPQ 2d 1217 (Bd. of Appeals 1996) the Court found that it is impermissible to use the claimed invention as an instruction manual or "template" in order to render the claimed invention obvious.

In view of Patents '672 and '069 taken either alone or in combination, there would be no motivation, absent an impermissible hindsight reconstruction using Applicant's invention as a roadmap, for a skilled artisan to select a mercaptoorganometallic compound and a non-sulfur organometallic compound to the exclusion of any other single compound or combinations of disclosed compounds. Thus, Applicants respectfully request reconsideration and withdrawal of this rejection.

Further, the Examiner has rejected claims 4 and 17 under 35 U.S.C. 103(a) as being unpatentable over Patents '069/'672 in view of '069 and further in view of WO 99/09036. Applicants submit that these claims are dependent upon a valid base claim, and therefore are also valid.



Applicants submit that claims 1-18 are in condition for allowance, and respectfully request reconsideration of these claims in the aforementioned patent application.

Very truly yours,

A handwritten signature in cursive script that appears to read "Carol A. Marmo".

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Pittsburgh, Pennsylvania
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